

Vietnam: Water and Wastewater Treatment – Market Brief

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Summary

This report provides a market overview and recommendations for market entry for water and wastewater treatment technologies and equipment in Vietnam. Market sub-sectors include technology consultancy services, machinery and equipment.

Vietnam is facing a combination of environmental problems including air pollution, water pollution, and increasing volumes of solid waste. Water quality and wastewater treatment are stated priorities of the Vietnamese Government. Major factors contributing to these problems include high population growth, rapid urbanization, and accelerating industrialization. In recent years, the government has spent over US\$100 million annually to deal with environmental problems, with estimated expenditures for 2006 reaching US\$180 million, or approximately .003 percent of estimated GDP. The National Strategy for Environmental Protection for the period 2001-2010 called for expenditures on environmental problems to increase to 1 percent of GDP. There is still some distance to go to reach that level.

Market Demand

Industrial wastewater discharged from industrial enterprises is at present inadequately treated. Infrastructure for wastewater treatment is either entirely absent or of poor quality. Industrial wastewater is thus having an increasingly serious impact on the environment. In total, there are 113 licensed industrial zones (IZs) in Vietnam, with 74 industrial parks in operation, including 68 IZs, four export processing zones (EPZs), and two high tech parks. According to a government report for the year 2006, less than 25 IZs have constructed centralized wastewater treatment plants. In Ho Chi Minh City only five of 15 IZs & EPZs have established wastewater treatment systems. Therefore, large quantities of wastewater containing toxic chemicals are discharged into the drainage system without treatment or monitoring. If this problem is to be addressed effectively, there will need to be a very large investment in the wastewater treatment sector.

Throughout Vietnam, access to safe water supply continues to be a problem. While 78 percent of urban households have piped water, only 44 percent of rural households can be considered to have ready access to safe drinking water. In some remote provinces, the ratio drops to only four percent. In addition, Vietnam has many poor and outdated transmission and distribution networks for water. As a result, the average rate of clean water leakage in urban areas is 36 percent and reaches 50 percent in some places. In order to improve this situation, the government has issued a water supply development plan, with the aim of providing clean water to 80 percent of the population by the year 2010. The Vietnam Water Supply and Sewage Association (VWSA) estimates that the total investment for water supply projects will be more than USD\$2 billion over the next ten years.

The Vietnamese government is also committed to improve the quality of the environment in order to become more attractive to foreign investment. In addition to ODA financing, the government has issued treasury bonds to finance major infrastructure projects that include drainage/sewage. Recently, three cities, Ho Chi Minh, Can Tho and Da Nang, have finished the initial phase of projects to construct piping systems collecting wastewater from households and businesses to be treated at central wastewater treatment plants. In addition, the government

encourages private sector investment in some service sectors previously run by state owned monopolies, including water supply, waste collection, and waste disposal.

Market Data

Market for Water & Wastewater Equipment and Services:

Water & Wastewater equipment/services	2005 (actual)	2006 (estimated)
Total Market Size	416	472
Total Local Production	256	272
Total Exports	0	0
Total Imports	160	200
Imports from the U.S.	13.6	15.6

^{*} The above statistics are in USD millions and are unofficial estimates.

Best Prospects

The following sub-sectors and products have market potential for U.S. firms in the environmental technology industry:

Water

Water purification products and equipment Pumps and valves Ductile iron pipes Water meters Water leakage control equipment/systems Water distribution control/management Water sampling/testing equipment RO desalinating systems

Wastewater

Wastewater treatment components / equipment Industrial wastewater treatment Equipment for repairing municipal drainage/sewage systems

Key Suppliers

Over the past 15 years, Denmark, Finland, Holland, Japan, Sweden, Australia, and France have been the most active countries financing bilateral aid projects in the environment sector or co-financing multilateral aid projects. Government grants from these countries are financing feasibility studies and "master plans" for environmental improvement and pollution prevention in Vietnam. Companies from these countries are thus well positioned to win the design contracts and subsequent engineering and equipment contracts. Following are sectors and the most active donor countries:

Clean water: Denmark, Australia, Japan, France, UK

Wastewater: Japan, Singapore, Australia, Korea, Belgium

Prospective Buyers

The government requires industries to install pollution control systems in their facilities to ensure environmental standards are observed. However, foreign-invested-enterprises are more conscientious in complying with the environmental regulations than state owned enterprises because environmental compliance is strictly required when the foreign invested enterprises set up their production facilities. Investments in new production facilities must include clear plans to prevent environmental pollution. New enterprises investing in new technologies have to establish waste treatment systems that meet environmental standards for those technologies. Existing polluting businesses are encouraged to renovate their production technologies and/or relocate to non-residential locations.

According to the Water Resources Management Law, local governments are responsible for protecting and conserving the water resources within their control areas. As a result, water projects initiated by local government have to conform to the water resources management and preservation master plan administered by the Ministry of Agriculture and Rural Development (MARD). For an Overseas Development Assistance (ODA) funded project, local governments and authorities play the executing role to implement the plan while the central government takes the lead on financial negotiation and arrangement.

Market Entry

Vietnam has just announced a new Environment Protection Law in July 2006, issuing over 200 environmental standards. The law is considered not only a regulatory framework to address environmental issues but also a tool for government administration in the process of achieving sustainable development. The Ministry of Natural Resources & Environment (MONRE) takes responsibility for environmental management throughout the country. Under MONRE, the National Environmental Agency (NEA) has been established to implement administrative and regulatory functions in a manner similar to the U.S. Environmental Protection Agency (EPA). MONRE coordinates and manages inter-ministerial efforts to ensure consistency in the process of environmental protection and pollution control. The Departments of Natural Resources & Environment (DONRE) at city and provincial levels are responsible for the management of environmental protection activities locally.

The market offers potential for new U.S. entrants, as many agents and distributors in Vietnam are eager to represent U.S. companies and suppliers of equipment and treatment technology.

Tariff & Non-Tariff Barriers

In general, imported environmental and pollution control equipment is subjected to import tax and a value added tax (VAT). The standard VAT rate is 10%. Importation of environmental pollution and control equipment to Vietnam must go through a government or local trading company that has an import license. In order to clear customs, imported equipment must also have an import permit issued by the Ministry of Trade. Capital equipment imported by foreign invested enterprises and overseas development assistance (ODA) project equipment is exempt from import taxes. ODA projects funded by the World Bank and Asian Development Bank usually require that foreign contractors partner with local companies to promote technology transfer.

Market Issues & Obstacles

Pollution control measures are legally required of all industrial producers. Industries are supposed to observe all environmental regulations and meet environmental standards. However, one of the key problems with Vietnam's

enforcement mechanism is that fines are still so low that they do not provide an incentive for companies to invest in pollution prevention technology. Moreover, enforcement of environmental regulations at state owned enterprises (SOEs) is weak since local DONREs find it hard to force SOEs under the ministries to comply with the regulations. City governments have begun to send a stronger message to polluting companies to follow environmental standards by either relocating their operations to non-residential areas or installing effective pollution control systems. In theory, those that fail to do so can be forced to close their operations.

Trade Events

Vietnam International Exhibition Fair ENVIROMENTAL TECHNOLOGY 2007 organized in Ho Chi Minh City by the Vietnam Environmental Protection Agent and Global Expo from April 27 – 30, 2007. Please visit the website http://www.vacne.org.vn/ENGLISH/HCTL2007 1E.htm for further information.

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